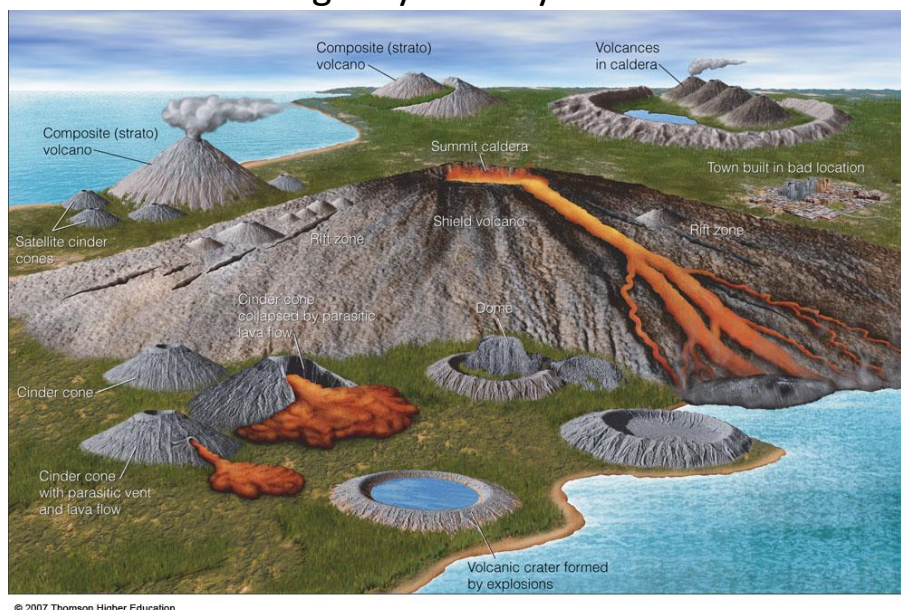


The Walker School – Science Department – Geology

Modeling Clay Activity: Volcanism



Directions: Students are to use modeling clay to construct a 3D representation of a particular type of volcano and possible eruptions associated with it. Students should include where appropriate for their chosen volcano types: caldera size, height, shape, size of magma chamber, size of vent, position of dikes and sills, lateral fissures, rift zones, types of ejecta and extent of pyroclastic flows. Students may elect to do this activity for a cinder cone, soma volcano, stratovolcano (composite), caldera, basalt plateau, or lava dome. Students will choose a particular volcano, such as Crater Lake which is a soma volcano and

Equipment Needed:

Internet (to do research on a particular volcano, and get images for model)

Molding Clay (5 colors)

Digital Camera (to document stages of construction)

Google Earth (to look at satellite images of volcanoes) * optional

Movie Maker 2 (to create a short video) * optional

Research: Students should first spend some time choosing a particular volcano and researching information about its geology. Students will right down specific information for their chosen volcano and include it in the model.

Model: The model should be constructed in cross section, so that the observer can see what activity is going on above ground and below the surface. Because the molding clay comes in different colors, the students should provide a key. The student may do this by making labels and attaching them to the model with pins or by creating a colored key on paper and putting it with the model.

Class Time Allotted: 2 periods

Deliverable: Students will be asked to give an oral presentation to 1) point out the locations and type of volcano (3 points) 2) describe the general geologic activity taking place (5 points), 3) identify specific activity of their chosen volcano from their online research (7 points), 4) take pictures of their model at 3 different stages of development and write a summary of their work (5 points), and 5) upload their work to the homework section of the First Class Geology workgroup). **Total Points:** 20 points

Extra Credit: Students who need extra credit may elect to create a short video of their project using images at different stages of construction and narration from their research information. (5 points)